REGULATION III - CONTROL OF AIR CONTAMINANTS

RULE 319
GINNING OPERATIONS

INDEX

BLANK PAGE

Adopted 04/07/99

MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS

REGULATION III - CONTROL OF AIR CONTAMINANTS

RULE 319
GINNING OPERATIONS

SECTION 100 - GENERAL

101 PURPOSE: To limit the discharge of particulate matter from ginning operations by establishing emission and control standards.

102 APPLICABILITY: This rule applies to all new, existing and modified ginning operations.

SECTION 200 - DEFINITIONS: For the purposes of this rule the following definitions shall apply:

201 EMISSION CONTROL SYSTEM (ECS) - A system for reducing emissions of particulates, consisting of both collection and control devices which are approved in writing by the Control Officer and are designed and operated in accordance with good engineering practices.

202 EMISSIONS UNIT - Any part of a stationary source which emits or would have the potential to emit any regulated air pollutant. Each piece of equipment shall be considered a single emissions unit for the purpose of this rule.

203 GINNING OPERATION - Any facility or plant which removes seed, lint, and/or trash from raw cotton and/or bales of lint cotton.

204 HIGH EFFICIENCY CYCLONE - Any cyclone type collector of the 2D-2D or 1D-3D configuration, designations referring to the ratio of cylinder length to cone length, where D is the diameter of the cylinder portion. A 2D-2D cyclone would exhibit a cylinder length of 2XD and a cone length of 2XD. A 1D-3D cyclone would exhibit a cylinder length of 1xD and a cone length of 3xD.

205 HIGH PRESSURE EXHAUST - The exhaust cotton handling air systems located at a cotton gin which are not defined as “low pressure exhausts.“

206 LOW PRESSURE EXHAUST - The exhaust air system at a cotton gin which handles air from the cotton lint handling system, battery condenser and mote handling systems.

SECTION 300 - STANDARDS

301 LIMITATIONS - OPACITY/GENERAL: No person shall discharge into the ambient air from any ginning operation any air contaminant, other than uncombined water, in excess of 20 percent opacity.

302 CONTROLS REQUIRED: An owner or operator shall control the following :

302.1 Effective April 7, 2001, each unit that is fed by seed-cotton unloading, first seed-cotton cleaning and master trash systems shall be controlled by an ECS that includes a 1D-3D cyclone or equivalent device with at least a 95% efficiency.

302.2 No later than April 7, 2004, the remaining high pressure exhaust emission units shall be controlled by an ECS that includes a 1D-3D cyclone or equivalent device with at least a 95% efficiency.

302.3 No later than April 7, 2004, all low pressure exhaust emissions units shall be controlled by an ECS that includes at least a 2D-2D cyclone or equivalent device with at least a 90% efficiency.

303 REQUIREMENTS FOR AIR POLLUTION CONTROL EQUIPMENT

303.1 Operation And Maintenance (O&M) Plan Requirements For ECS:

a. An owner or operator shall provide and maintain (an) O&M Plan (s) for any ECS, any other emission processing equipment, and any ECS monitoring devices that are used pursuant to this rule or to an air pollution control permit.

b. The owner or operator shall submit to the Control Officer for approval the O&M Plans of each ECS and each ECS monitoring device that is used pursuant to this rule.

303.2 Providing And Maintaining ECS Monitoring Devices: An owner or operator operating an ECS pursuant to this rule shall install, maintain and calibrate monitoring devices described in the O&M Plan. The monitoring devices shall measure pressures, rates of flow and/or other operating conditions necessary to determine if the control devices are functioning properly.

303.3 O&M Plan Responsibility: An owner or operator of a facility that is required to have an O&M Plan pursuant to subsection 303.1 must fully comply with all O&M Plans that the owner or operator has submitted for

approval, but which have not yet been approved, unless notified otherwise by the Control Officer in writing.

304 TRASH HOPPER DUMPING: Any owner or operator shall dump trash into a hopper that shall utilize an enclosure with a minimum of two sides in order to minimize fugitive emissions. The sides of the enclosure shall prevent wind dispersion by ensuring that the height of the enclosure extends above the opening of the dumping device. If an auger is used to transport the trash into a hopper, the open end of the auger or auger sleeve shall be below the top of the enclosure.

SECTION 400 - ADMINISTRATIVE REQUIREMENTS

401 O&M PLAN COMPLIANCE SCHEDULE: Any owner or operator employing an ECS device as of April 7, 1999 to meet the requirements of this rule shall file by October 4, 1999 an O&M Plan with the Control Officer in accordance with subsection 501.2 of this rule.

402 CONTROL EQUIPMENT COMPLIANCE SCHEDULE: Any owner or operator that does not comply with Section 302 or 304 of this rule as of April 7, 1999 shall submit to the Control Officer a compliance plan to achieve compliance with this rule no later than October 4, 1999. The owner or operator shall specify dates for completing increments of progress in the plan. The Control Officer may require a person submitting a compliance plan to submit subsequent reports on progress in achieving compliance. No later than 180 days after the control equipment is considered to be in compliance with this rule, the O&M Plan, as stated in Section 303 of this rule, shall be filed by the owner or operator with the Control Officer.

SECTION 500 - MONITORING AND RECORDS

501 RECORDKEEPING AND REPORTING: The owner or operator subject to this rule shall comply with the following requirements. These records shall be kept for a period of five (5) years.

501.1 Process Records: For each day of operation, the owner or operator shall record the total hours during which a ginning operation was conducted, the number of bales of cotton produced and the total weight of all bales produced.

501. 2 ECS O&M Plan Records: An owner or operator shall maintain a record of the periods of time that an approved ECS is used to comply with this rule. Key system parameters such as flow rates, pressure drops and other conditions necessary to determine if the control equipment is functioning properly shall be recorded in accordance with the approved O&M Plan. The records shall account for any periods when the control system was not operating. The owner or operator shall also maintain records of all maintenance performed according to the O&M Plan. The

results of the visual inspection, and any corrective action taken if necessary, shall also be recorded.

502 FLOW MAINTENANCE EVALUATIONS: The owner or operator shall conduct maintenance evaluations of the control device to ensure continuing proper flow through the collection system. This evaluation shall consist of the following:

502.1 An initial baseline study of the entire dust collection system to determine its proper balance of volumetric flow to ensure maximum particulate matter collection efficiency. This evaluation shall be made prior to October 1999, following the adoption of this rule. The baseline study shall be conducted using EPA Method 2, as incorporated by reference in subsection 503.1(b). During the evaluation, the volumetric flow at local conditions shall also be determined and recorded for reference. The cyclones shall be operated at +/- 20% of the designed gas flow at local conditions. The average pressure drop across each cyclone or set of cyclones or static pressure measured down flow of each fan will be established and recorded at local conditions for later reference.

502.2 Monthly checks referenced to the initial baseline shall be made to ensure that the control system is operating within +/- 20% of the designed gas flow at local conditions, as determined in the initial baseline study. These checks shall be made by direct measurements using one of the following methods:

a. Pressure drops across each cyclone using an anemometer, magnahelic device, manometer, velometer or equivalent device.

b. Static pressure measurements at each fan using a magnahelic device, manometer, or velometer or referenced back to the baseline which was made using an approved method of measurement.

c. Flow measurements at the approved location, defined in accordance with the O&M Plan, measured with a calibrated anemometer, manometer, velometer or equivalent device.

502.3 Visual checks of the ECS for leaks, holes and excessive visible emissions shall be conducted and recorded during each day of operation.

503 COMPLIANCE DETERMINATION: The test methods for those subparts of 40 CFR Part 60, Appendix A, adopted as of July 1, 1998, as listed below, are adopted by reference as indicated. This adoption by reference includes no future editions or amendments. Copies of test methods referenced in subsection 503.1 are available at the Maricopa County Environmental Services Department, 1001 North Central Avenue, Phoenix, AZ, 85004-1942.

503.1 Test Methods:

a. Opacity Determination: The opacity determinations shall be conducted in accordance with the techniques specified in EPA Reference Method 9, 40 CFR Part 60, Appendix A.

b. Velocity And Volumetric Flow Rate: The velocity and volumetric flow rate shall be determined according to EPA Reference Method 2, 40 CFR Part 60, Appendix A.

c. Particulate Emissions: The amount of particulate matter shall be determined according to EPA Reference Method 5, 40 CFR Part 60, Appendix A.

BLANK PAGE